

PROCESSING SHORT CONTACT TIME COAL LIQUEFACTION PRODUCTS. W. C. Rovesti and
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The authors believe that there are substantial practical applications to the use of the primary coal liquefaction products (i.e., made at short contact times) as an intermediate in the production of clean solid and liquid fuels from coal. The theme of these applications is selective treatment of the primary products to meet specific end-product requirements. Traditional coal liquefaction practice has tended toward combination of the initial liquefaction, product upgrading, and recycle media generation into a single reaction step.

A key element in the envisioned process applications is the Kerr-McGee Critical Solvent Deashing (CSD) Process. The primary liquefaction effluent is quite viscous and would be a poor candidate for filtration. Further, process solvent is imbibed in the products and cannot be recovered for recycle by vacuum distillation. Data are presented in which the CSD unit has been used to recover the ash free vacuum resid product and imbibed process solvent. In addition, the streams have been generated for internal recycle and catalytic upgrading.

Continuous bench data are presented on short contact time liquefaction of bituminous and subbituminous coals. Pilot plant data are also presented.